

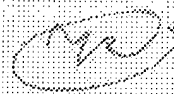
# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

MLA 110

To:

ETUDES & PRODUCTIONS SCHLUMBERGER  
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PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(PCT Rule 71.3)

Date of mailing  
(day/month/year)

11.11.2008

Applicant's or agent's file reference:  
WO 21.1140

WCP - RMC

IMPORTANT NOTIFICATION

International application No.  
PCT/EP2004/010656

International filing date (day/month/year)  
22.09.2004

Priority date (day/month/year)  
07.10.2003

Applicant

SERVICES PETROLIERS SCHLUMBERGER et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary report on patentability and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

## 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB001).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 35(2) to (4) merely serve the purposes of international preliminary examination and that 'any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed invention is patentable or not' (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international  
preliminary examining authority

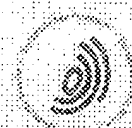


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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference WO 21/1140		FOR FURTHER ACTION		See Form PCT/PEAA/19
International application No. PCT/EP2004/010658		International filing date (day/month/year) 22.08.2004		Priority date (day/month/year) 07.10.2003
International Patent Classification (IPC) or national classification and IPC G06F9/45, E21B33/035, E21B43/52				
Applicant SERVICES PETROLIERS SCHLUMBERGER et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 36 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 3 sheets, as follows:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 507 of the Administrative Instructions);</li> <li><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Box No. I: Basis of the opinion</li> <li><input type="checkbox"/> Box No. II: Priority</li> <li><input type="checkbox"/> Box No. III: Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li><input type="checkbox"/> Box No. IV: Lack of unity of invention</li> <li><input checked="" type="checkbox"/> Box No. V: Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li><input type="checkbox"/> Box No. VI: Certain documents cited</li> <li><input type="checkbox"/> Box No. VII: Certain defects in the international application</li> <li><input type="checkbox"/> Box No. VIII: Certain observations on the international application</li> </ul>				
Date of submission of the demand 28.04.2005		Date of completion of this report 11.11.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.O. Box 5010 Patentamt 2 NL-2220 HV Rijswijk - Pays-Bas Tel.: +31 70 340 2040 Fax: +31 70 340 2041 E-mail: epo@epo.org		Authorized Officer:  Daniëlle P. Telephone No.: +31 70 340 2296		

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**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/EP2004/010658

**Box No. I Basis of the report**

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 56.3)
2. With regard to the *amendments*\* of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-13 as originally filed

**Claims, Numbers**

1-13 received on 28.04.2005 with letter of 25.04.2005

**Drawings, Sheets**

12-44 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (specify):
  - ☐ any table(s) related to sequence listing (specify):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
  - ☐ the claims, Nos.
  - ☐ the drawings, sheets/figs
  - ☐ the sequence listing (specify):
  - ☐ any table(s) related to sequence listing (specify):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/EP2004/010658

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	1-13
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-13
Industrial applicability (IA)	Yes: Claims	1-13
	No: Claims	

**2. Citations and explanations (Rule 70.7):**

see separate sheet

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**INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(SEPARATE SHEET)**

International application No.

PCT/EP2004/010658

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

The following documents are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

- D1: US-B-6 422 3151 (DEAN QUENTON WAYNE) 23 July 2002
- D2: US 2002/159439 A1 (MARSH ANITA B ET AL) 31 October 2002
- D3: US 2002/180796 A1 (MAHONEY MARGARET MARY ET AL) 5 December 2002
- D4: US-B-6 202 2081 (HOLIDAY JR MATTHEW R) 13 March 2001
- D5: US 2002/174010 A1 (RICE JAMES L) 21 November 2002

1) The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 and 8 does not involve an inventive step in the sense of Article 33(3) PCT.

1.1) Document D1 discloses (cf. column 11 line 15 - 29; column 5 line 36 - 39) a subsea controller located under the sea level for managing a plurality of tools in a subsea well installation. This subsea controller can have executable programs downloaded from PCS/surface controller. D1 describes the prior art described in the application (page 3 paragraph 11).

1.2) The problem to be solved by the present invention may be regarded as (see application, page 6 paragraph 29-31):

Avoid losing data (by stopping the controller) from the subsea controller while uploading the subsea controller with updated software.

1.3) Confronted with this problem the man skilled in the art of subsea engineering will necessarily consult a man skilled in the art of programme loading. An obvious solution to the problem is dynamic download which means that a software can be downloaded without stopping the execution of the existing program for example by using a virtual machine. Such dynamic loading is described in D2 (fig. 4; paragraph 5 - 12) where an application is



INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(SEPARATE SHEET)

International application No.

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downloaded and executed via a virtual machine. The main goal of D2 is to allow download to the controller while the controller is operational. This is done by using a JVM which executes (see paragraph 51 & 52) the downloaded application module just like in the application. Note that one of the basic of JVM is to allow dynamic operations.

1.4) Therefore the solution proposed in claim 1 and 8 of the present application cannot be considered as involving an inventive step (Article 33(1) & 33(3) PCT).

2) Dependent claims 2-7 and 9-13 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to novelty and/or inventive step, the reasons being as follows:

claims 2,3,9,10 : D3 discloses a native application with an interface to enable two-ways access with an application.

claims 4,12 : D4 defines a main memory and a virtual machine memory distinct from each other.

claim 5 : Software protection using a key code is known. See D5.

claims 6,13 : It is obvious to include a driver in the software update if a new tool is installed.

claim 7 : D1 describe a subsea well installation.

claim 11 : D2 discloses dynamic loading.

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